

CLAIMS

1. A doppler type ultrasonic flow meter for measuring the volumetric flow of a measurement object fluid using doppler shift of ultrasound, characterized in that

the doppler type ultrasonic flow meter has 1 pair of ultrasonic transducers for performing transmission of ultrasound and receiving of an ultrasound echo of reflected ultrasound, the 1 pair of ultrasonic transducers are disposed on an extension line of a measurement line for performing measurement of doppler shift, symmetrically about the center axis of a pipe with a measurement object fluid flowing through its inside, and on the outside of the pipe,

and a flow profile for the side opposite, with respect to the center axis of the pipe, the side on which the respective ultrasonic transducer is disposed is used for the calculation of the volumetric flow of the measurement object fluid.

2. A doppler type ultrasonic flow meter according to claim 1, characterized in that

of the ultrasonic transducers forming the pair, after ultrasound from a first ultrasonic transducer is radiated into the pipe and a flow profile for the opposite side with respect to the center axis of the pipe from the side on which the first ultrasonic transducer is disposed is calculated, ultrasound is radiated into the pipe from the second ultrasonic transducer, and a flow profile for the opposite side from the side on which the second ultrasonic transducer is disposed is

calculated.

3. A doppler type ultrasonic flow meter according to claim 1, characterized in that

of the ultrasonic transducers forming the pair, after ultrasound is radiated into the pipe alternately from the first ultrasonic transducer and from the second ultrasonic transducer, with respect to the center axis of the pipe, flow profiles are respectively calculated for the opposite sides from the sides on which the first ultrasonic transducer and the second ultrasonic transducer are disposed.